Course Specification

(Postgraduate Programs)

Course Title:	**Selected topics in Physical Chemistry**
Course Code:	**CHM 6249**
Program:	**Master of science in chemistry**
Department:	**Chemistry**
College:	**Science**
Institution:	**Imam Mohammad Ibn Saud Islamic University**
Version:	*Course Specification Version Number*
Last Revision Date:	*Pick Revision Date.*

Table of Contents

A. General information about the course:

1. Course Identification:

1. Credit hours: 3 (3 Lectures, 0 Lab, 0 Tutorials)				
2. Course type				
A.	☐University	☐College	☐Department	☐Track
B.	☐Required		☒ Elective	
3. Level/year at which this course is offered: Level 1/Year 2				

4. Course General Description:

The course covers selected topics in Physical Chemistry suggested by the Physical Chemistry Division, with recommendation of CGC forward to the approved by the head of department and the department council each time this course is offered.

5. Pre-requirements for this course (if any)**:**

Advanced Physical Chemistry – CHM 6141

6. Pre-requirements for this course (if any)**:**

None

7. Course Main Objective(s):

Enable students to enrich their knowledge with different special topics of interest, which are carefully selected from Physical Chemistry topics.

- **Learn topics those are not formally offered by the program and receive appropriate academic credit.**
- **Recognize the hot topics in the Physical chemistry.**

2. Teaching Mode: (mark all that apply)

No	Mode of Instruction	Contact Hours	Percentage
1	Traditional classroom	**45**	**100 %**
2	E-learning		
3	Hybrid • Traditional classroom		

No	Mode of Instruction	Contact Hours	Percentage
	• E-learning		
4	Distance learning		

3. Contact Hours: (based on the academic semester)

No	Activity	Contact Hours
1.	**Lectures**	**45**
2.	**Laboratory/Studio**	**0**
3.	**Field**	**0**
4.	**Tutorial**	**0**
5.	**Others (specify)……**	**0**
	Total	45

B. Course Learning Outcomes (CLOs), Teaching Strategies and Assessment Methods:

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
1.0	**Knowledge and understanding**			
1.1	**To be specified according to the selected topics**		**Depending on.**	**To be specified according to the selected topics**
1.2				
1.3				
1.4				
2.0	**Skills**			
2.1	**To be specified according to the selected topics**		**Depending on.**	**To be specified according to the selected topics**
2.2				
2.3				
2.4				
3.0	**Values, autonomy, and responsibility**			
3.1				

Code	Course Learning Outcomes	Code of CLOs aligned with program	Teaching Strategies	Assessment Methods
3.2	To be specified according to the selected topics		Depending on.	To be specified according to the selected topics

C. Course Content:

No	List of Topics	Contact Hours
1. 2. 3. 4.	Specific to Selected topics in Physical Chemistry	45
Total		45

D. Students Assessment Activities:

*Assessment Activities (i.e., Written test, oral test, oral presentation, group project, essay, etc.)

No	Assessment Activities *	Assessment timing (in week no)	Percentage of Total Assessment Score
1.	Class Activities (Open Discussion, Mini-reports, Oral Presentation, solving questions)	weekly	30 %
2.	Midterm Exam	9 th week	30 %
3.	Final Exam	17 th week	40 %
4.	Total		100%

E. Learning Resources and Facilities:

1. References and Learning Resources:

Essential References	To be specified according to the selected topics

Supportive References	**To be specified according to the selected topics**
Electronic Materials	**Saudi Digital Library**
Other Learning Materials	• **Blackboard** • **Multimedia associated with the text book and the relevant websites.**

2. Educational and Research Facilities and Equipment Required:

Items	Resources
facilities (Classrooms, laboratories, exhibition rooms, simulation rooms, etc.)	**Each of the classroom should be equipped with a whiteboard and a projector, with a maximum of 20 students.**
Technology equipment (projector, smart board, software)	**The rooms are equipped with data show, Smart Board, WI-FI access.**
Other equipment (depending on the nature of the specialty)	**None**

F. Assessment of Course Quality:

Assessment Areas/Issues	Assessor	Assessment Methods
Effectiveness of teaching	**Students**	**Direct: Questionnaire.**
	Course Responsible	**Direct: Course e-Portfolio. Indirect: Second examiner checklist-Course report.**
	Peer Reviewer	**Direct: Questionnaire. Indirect: External assessor report.**
Effectiveness of students assessment	**Program Leaders**	**Direct: Course e-Portfolio. Indirect: Course report.**
Quality of learning resources	**Students**	**Indirect: Second examiner checklist-Course report.**
	Faculty (Academic Advisory-GCC)	**Direct: course Entrance/Exit. Indirect: Observations - Accreditation review.**
	Program Leaders	**Direct: Course e-Portfolio. Indirect: Course evaluation survey-Observations- Syllabus**

Assessment Areas/Issues	Assessor	Assessment Methods
		review- Accreditation review.
	Course Responsible	
The extent to which CLOs have been achieved	Course Responsible	Direct: Exams - Course e-Portfolio. Indirect: Second examiner checklist- Course report.
	Program Leaders	Indirect: Exams.

Assessor (Students, Faculty, Program Leaders, Peer Reviewer, Others (specify)
Assessment Methods (Direct, Indirect)

G. Specification Approval Data:

COUNCIL /COMMITTEE	Council of Chemistry Department
REFERENCE NO.	10 (No. 2/10)
DATE	21/04/1444- 15/11/2022